

ABSTRACT

A modular submersible repairing system is capable of dealing with various tasks somewhat inefficiently, though, and of being inserted and installed in a reactor instantly, and highly maneuverable. A repairing method is carried out by the modular submersible repairing system. The modular submersible repairing system comprises a working unit including at least one type of tool module (1) capable of repairing structures in a reactor, a scanning/pitching module (2) capable of being selectively connected to or disconnected from the tool module, and provided with a scanning/pitching shaft for scanning or pitching the tool module, a submersible fan module (3) capable of being selectively connected to or disconnected from the scanning/pitching module, and a first buoyant module (4) for keeping the orientation of the tool module; and a base unit including a manipulator module (5) internally provided with an actuator driving mechanism, a adsorbing module (6) capable of being detachably mounted on the manipulator module and of adsorbing to a wall, and a second buoyant module (8) for keeping the orientation of the manipulator module.

Each of at least the scanning/pitching module and the manipulator module is provided with a submersible connecting device (18, 21) capable of being operated in water for engagement and disengagement. The configuration and functions of the modular submersible repairing system can be changed or modified according to various purposes of work in the reactor by properly combining those modules. The modules can be connected together in the reactor by remotely operating the submersible connecting devices.